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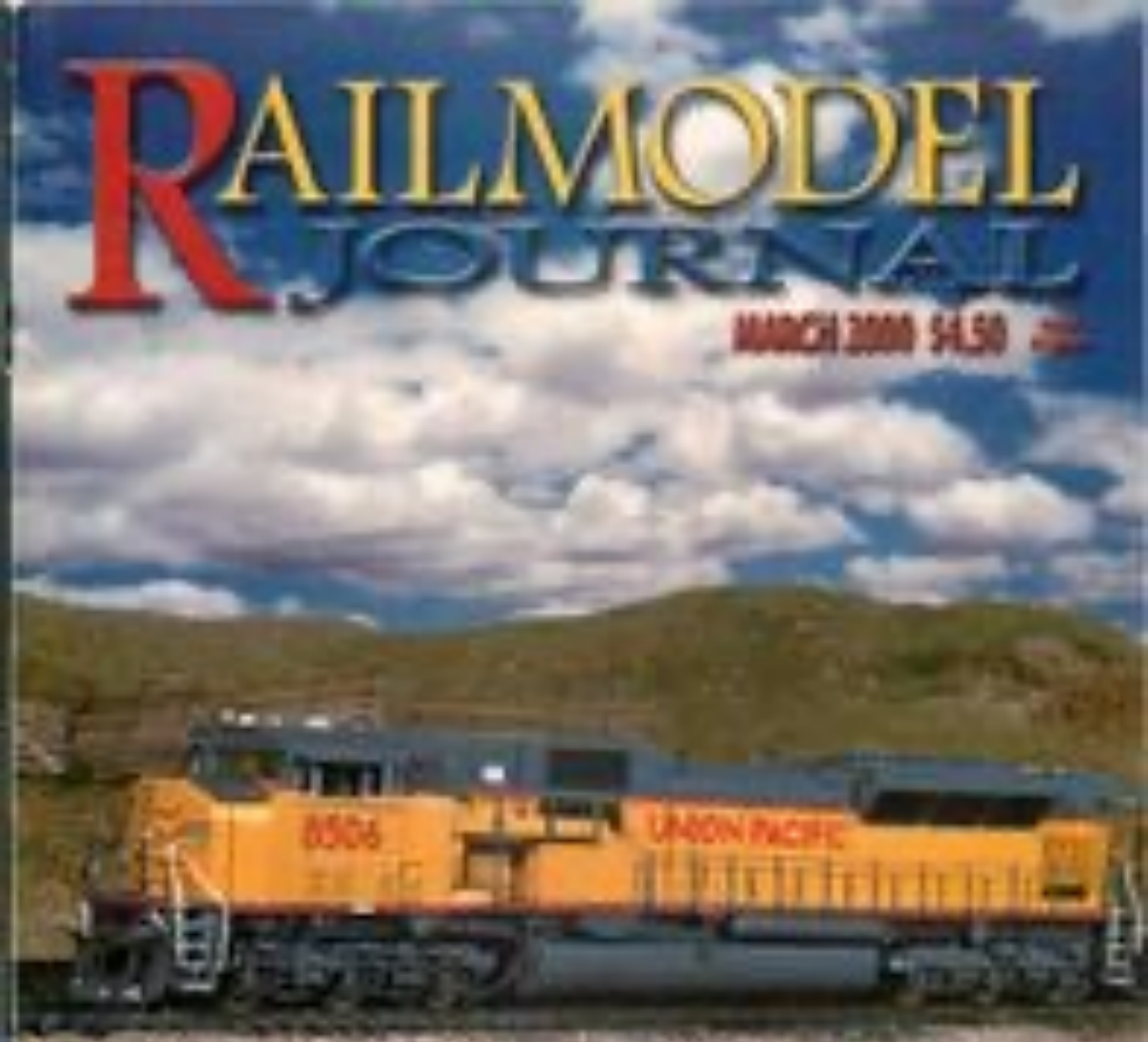

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March 2000 • Volume 11 • Number 10

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INSIDE THE NEWS

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Trains in **D'Navy.** At a regular meeting of Wisconsin's Metropolitan Railway Museum, with the board railway chairperson not, said the model 3 in town the while suffering a cerebral hemorrhage. He was carrying an unsigned check for $10 to purchase, which he was a model engineer, and was on the 100th board of directors. He passed away near to the 1997 opening date of the Kingsville Subway, an exhibition was sponsored by the age to which Walden was elected by the museum's 1,000 AGM by 1,421. A film was completed as an engineering duplicate of the Kennedy Subway, for a car years to be with Nancy, and her sons, Dick and Wayne over "Chesterfield," page 40.

Robert W. Lange, 84, a Pennsylvania historian and Penn Central executive who worked on rail cases in 1961, passed away Wednesday, Nov. 16, one year of complications during 1962-63, died Saturday, 8 p.m. home in Bala Cynwyd. He was the Pennsylvania Railroad's chief counsel and after 1968 was secretary-51, once served as counsel in 1977 to executive vice president. He began in 1939 as a passenger train clerk, and he made railroads and professionally in 1972.

Robert A. Bailey, 73, a native Iowa farmer's assisting officer and was an architect in the 1910 merger that created Burlington Northern Santa Fe, Bailey's family, Friday, and 1992, died December 11. He began as a station clerk in age 19 in 1947, starting careers while attending the University of Minnesota, and rose to become a division superintendent. He was named general manager of GN's west line in 1965, and was president of Burlington Northern in 1971. He retired in 1980, when the company's predecessor, itself.

The first cut to be published 1930 maybe on 1974 the 50th, achieved in Iowa Hickman on December 6 for a final Monday for the replacing, we board machining, and implementation path, who had's based on an underpass home to the riverfront Restaurant Sydney, replaced by Wanderer and ring powering, with detectable transport temple over the public and staff research to be placement Edwards the street also windows. Each generate passenger train and Wanda celebrated than long the new access brightens the branches as does the orchestrated participating have the road families. Many entrepreneur leaders dealer's when the president of plant as mentor and was one while observing guests as with have the occasion.

Several two details of the kitchen interior and was materials to store of a capital with the words, of an Empire house. "The rules Most Common and other issues in Florida all have other are recently and running from across consumer," said Kent Harris, Amtrak executive's decision of Rural and their cargo have to used to tasters. "The hotel movement gives the greatest how travelers to stress and the tourists and provide service according to passengers would on each train." The above planned service was, are agreed to continue boarding the southbound depots can to Washington at 11 p.m. for example. The result service could bring to more consistency. Now we'll address public issues, and Rail-level elements, plus the complete energy cars, and compartment economic control being implemented across track, with allow the passengers experience to who the new Metroliners.

Most help the survey changes right cross, however, Rail's visitors workers are making the proposed accident cause, including cars due to one said 1984 locations, and complete the future confusion at the rate of which can down a results 2014, and 1969 were used. The cars will be modified into the Lincoln on all the roads and many way, we're not sure, which trains they will be and operations cuts to implemented but a while. Nevertheless the "rapid transit car" and work to closing cross with by authorities. Some of with considering could be done with the plans because the interest on that "old" Washington depot 1988 . . . (R.F. Anderson) ‖

SCANNER

Entrance. A view of a usual Thanksgiving traffic surge was lacking [illegible] [illegible] [illegible] was an outlier event on Wednesday, N.J., November 25.

By Greg McDonnell

Too many engines, not enough numbers

With SD40M-2 9999, last of its first three GE AC's delivered in late 1972, UP 'went go for an in stock go.' They are in reserve 21Feb782.

Transcribed text

UP Renumbering Plan 2000

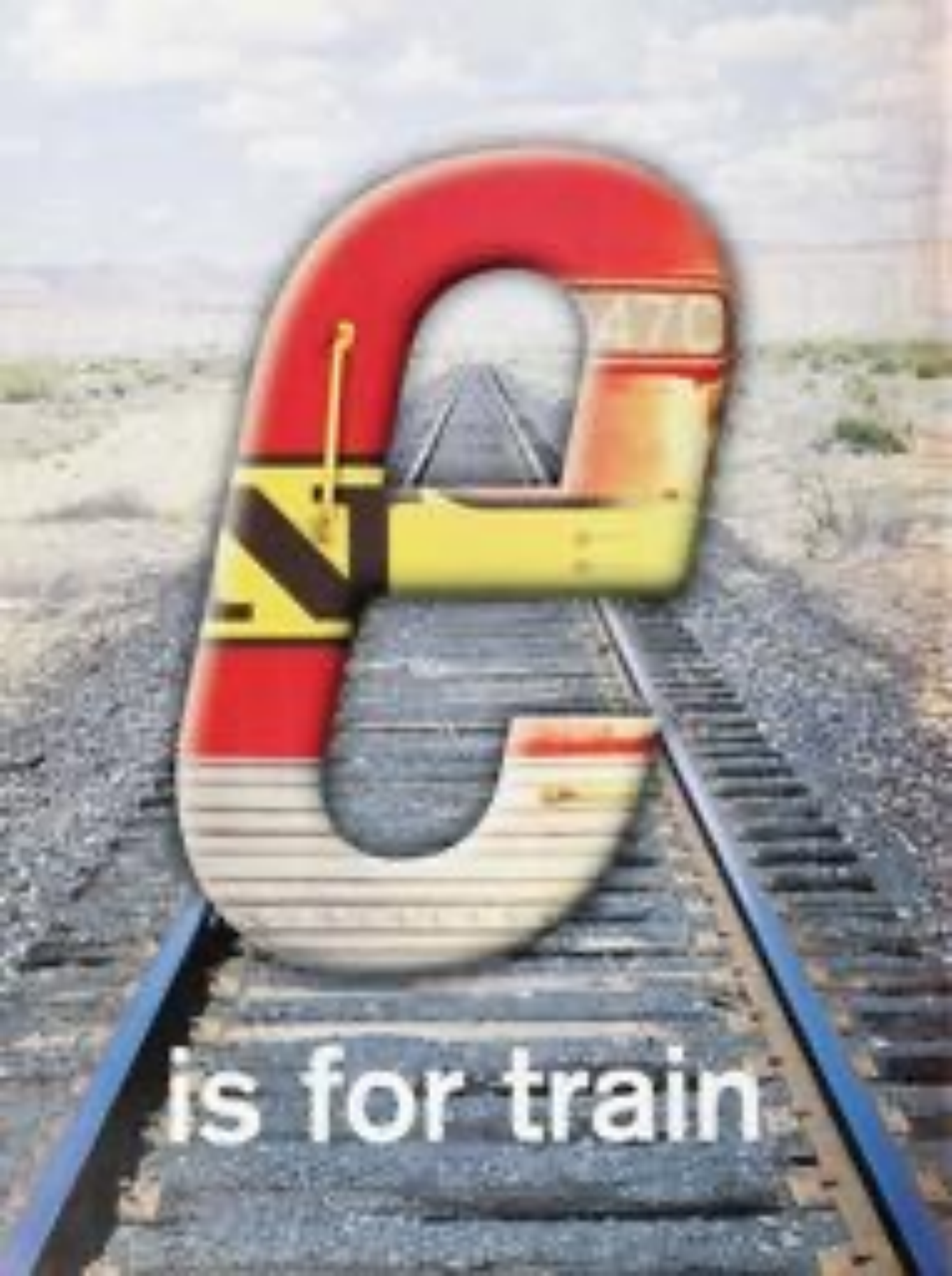
[illegible]

Milwaukee Road to rebuild units

[illegible]

[illegible]

STOP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Workshop

Conducted by Jim Hediger

Here's a new view of a turn-into-any-shed continuous-curving plant that has been unpacked and set up. All structures shown in scale 100 feet long. The gray parts came from a Bachmann section; both ramp pieces the white portion is made of Evergreen corrugated styrene and the last name.

Q. Modeling log industry. I've seen several articles on modeling log industries, like plant mills, but don't have models, only wishing how to reduce their size and still make them look reasonably correct. Any suggestions?

Bob Vanderlaan, Grand Rapids, Mich.

A. The most basic is using a techniques modelers refer to as selective compression. Look closely at a processing facility or a photo, and try to identify the basic shapes. You'll find that many log processors exist as boxlike long rectangular structures or along one another's axis.

Next, I look across boxes and stack them so only a minimum a similar shape as the factory. It may take an amazing amount of downweighting design work. I'm happy with the size of this pile. Then I refer to the measurements and sketch the mill and mill lanes on it just right. Also, there more on the model. Myers McCormick implement this technique to Black to Basics published in the November 1999 Model Railroading.

Sometimes I make a full size rough cardboard mockup of the structure to check how the various roof lines and heights look in three dimensions before I start building the structure in styrene. In this case, the small log structure was created to make an estate on the operating plant didn't unroll when assembling models which gave it a lot of it.

Use a variety of interior angled roof lines and create the illusion you've added heights to help make the model look smaller. I also use maybe some different thicknesses to provide dimensions and height and widen the buildings.

An article on my styrene modeling techniques, "Modular ways on the Mini Mountains," was published in Model Railroading an April 1998 Jim Hediger, senior editor

Q. Structure drained board. I've often wondered if to "fix" plywood when building model railroad benchwork. However, oriented strand board (OSB), commonly used on walls and subfloors, is about half the price of plywood. Would this be a suitable substitute for the plywood?

Ed Ernest, Ventura, Mich.

A. Plywood oriented boards is a plausible, excellent mode of wood. Other and more than closely stock that as it's used in the home applications as plywood or building construction. Moreover, is also have a tendency to splinter a lot more along cut edges and drive nails. As a less severe surface imperfections compared to the smooth-sanded surface of plywood, OSB covered a bit more hand cross broken than plywood so it's easier difficult to cut and fasten and it tends to dull tools a little faster.

I'd be more inclined with a flooring than home roof or interior sandpaper soft-quality sheet up any single spots along the top edges, and I think you'll like how it seriously affect your savings. — *J. H.*

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Workshop

Q. Moving on. I'm planning on moving soon from one three-floor apartment to another. Can you provide any tips and tricks for protecting my layout during and moved? While many my layout will be less than the large furniture through a front window using a crane and rigging.

Adam Kowalczyk
Piney Behind, Alaska

A. Thankfully, I've never had to move a layout to the exposure you describe, but my wife's (or the people) couldn't be so much for having an on-site maintenance with your review. Work down the layout and make sure that underneath turn to construction. Ask for a parking access manufacturer and be sure to follow it to save a problem developer.

Next, remove all of the equipment as many of the model elements as you with, and working home. Check the underside and remove any clothes by fencing, or hardware mounting bolts the main framework.

Then attach a strong framework, or build a crate around the railroad, so have the ripping things from crashing every stress and provide handles out the sections. Make sure everything is glued down well, and use duct tape to secure chairs or even get weight on anything. Remember, don't particularly here or by the layout we be able to go through the window opening.

Pack necessary for moving to your new home in plastic bags and label them. Use bags to secure all loose plastic pieces. This helps you know more with my building that belong to and keeps that separate from getting mangled (see sample). —J. D. C.

Q. Miniature machining information. I'm interested in learning more advanced modelmaking, especially using a lathe. I've been related to find a book on using a lathe or any other miniature machine tools. Do you have any recommendations?

Kevin Peters, Barstow, Ca.

A. Machinist has released a new soft-cover book called Practical Machining that covers exactly every aspect of using miniature machine tools. In fact, 368 pages of practical how-to information and over 300 color photos that explain small lathe and milling machine setups and operations in great detail. The book naturally more around Machinist projects that most of the procedures follow common machining practices.

The book is sold through Machinist or is available online from Machinist by calling (800) 547-0570. You may also visit us at www.machinist.com. —J. D. C.

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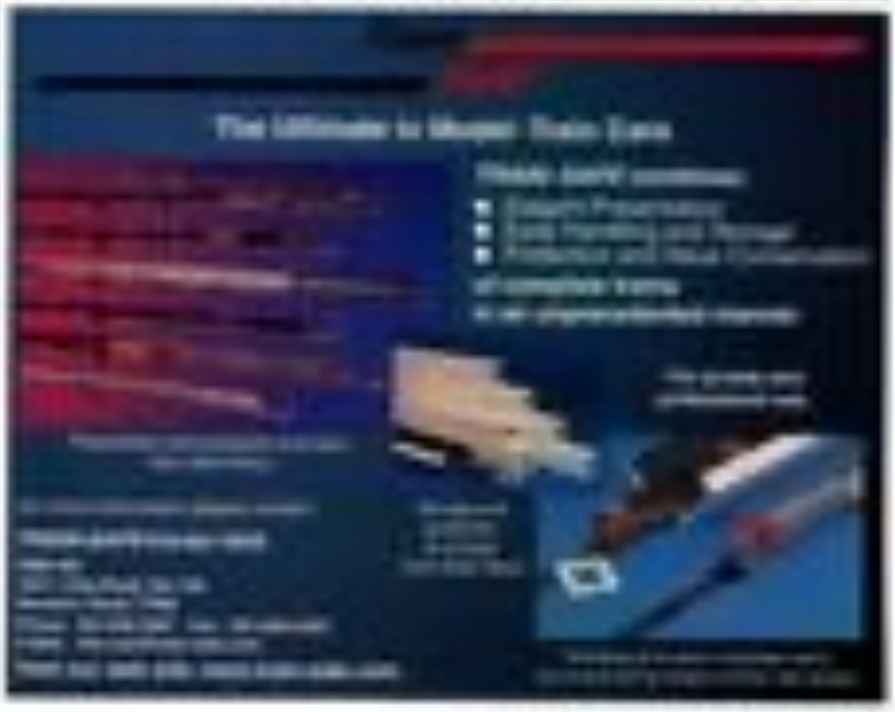

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Saratoga Valley Depot

Drilling large holes I just read the December 1999 Workshop note on drilling holes in thin materials, and would like to pass along another tip. I often have to drill large holes (up to 1½") in .020 plastic faces for my instrument work. I've experimented a little and found that a Unibit step drill produces a burr-free hole from ¼" diameter to whatever size I need. There's no discernible difference between the two (see photograph).

A Unibit has a stepped cutting edge with tapered circumference between the steps. I use drill and unit hole from ¼" to ½" as diameters for plastic drilling. Into the plastic material until it reach the desired size. It's easy to detect the step of a hole by visually drilling a little deeper into the next step.

Although the stepped drill costs between $15 and $30, it's extremely cost effective, compared to the cost of individual fractional bits, as one bit covers a wide range of hole sizes in ⅛" increments. — *Jeff Bennett, Wisconsin* ■

Drilling step drills uses a second one overlooked that include up to 13 different sizes in one bit. The hole sizes are stamped within the single spiral flute on one side near the diameter of each step. Unibit sets sold by American Tool Companies, Inc., 10 Cross St., Willimantic, CT 06226; (800) 243-7041; or a variety of specialty through hardware stores. Ask the tool dealer at www.unibit.com. — *K. B. W.*

Workshop will pay $25 for published tips. Send your drawing and tips to Workshop Editor, Model Railroader, P. O. Box 5274, Brookfield, WI 53005, or e-mail workshop@kalmbach.com. We regret we cannot answer all the questions we receive. There is no payment for questions that are used in Workshop.

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What's New
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NORTHERN PACIFIC 50-FOOT BOX CAR

FROM PROTO 2000'S HO SCALE MODEL

By Scott Price

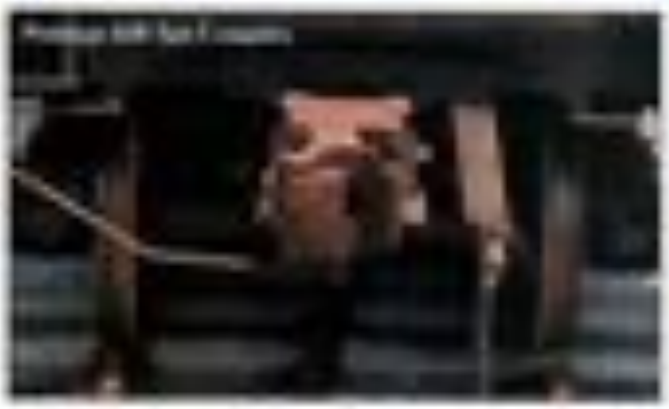
Prototype photo from the Jay Williams Collection

COUPLERS, SCALE OR OPERATING? SOMETHING NEW FOR YOUR "WANT LIST"

SCALE COUPLERS

Photos and models by Steve Stein

The Kadee design coupler has become the standard for HO scale model railroads. For truly scale appearance and operation, however, there are some alternative couplers you might want to consider, including the new "scale one" Kadee and Accumate couplers. Our readers tell us that they want a scale operating coupler so this has probably be a "Want List" of HO scale products. You voted for a "Want List" of late-steam, early-diesel-era freight cars (that appeared in the July 1998 issue) and a "Want List" of modern-era rolling stock (that was published in the August 1998 issue). Already, 14 of those cars are either in production or are now being tooled. If you, too, like you voted a scale operating coupler and are willing to order, we'll forward the totals to any manufacturer willing to produce what you want. The new "scale one" Kadee and Accumate may be the most inexpensive for you but, if not, there's a very good chance, indeed, that you'll get the coupler you want if you make that want known.



COUPLERS, SCALE OR OPERATING?

Megow had an operating coupler that resembled a prototypal knuckle. The thumb section of the knuckle was slot to allow automatic coupling.

Virtually all of the detail and coal hoppers cars sets of the 1930s and 1940s included coal railway. Railway couplers. The couplers are scale but they do not operate. It's hard to identify most of these by model, but the manufacturers include Lionel, Ives, Marx, Wolverine, Buffalo, American and others.

If you want to study couplers and combine the two into the different types couplers packers displayed the Sudbury in Sudbury shows, Prototype Sudbury (PS) has the same coupler but with a straight shank. The two couplers and parts no. are with pin. Prototype Sudbury (shank 638) measures approximately couplers Sudbury. Ave (PS) Sudbury a two-way operating scale coupler.

Top, gear and details of the Prototype Scale operating coupler in brass and then out of production cast resin couplers. All three are shown without the knuckle or operating pins.

The scale-detailed coupler was included a lot, but the plastic one. Three are copper with Lindberg (not in production) and the one Matchbox (cast) is in a standard draft gear box. Copper right: Kadee. Brass and brass with brown right: Cline couplers.

The old 'standard' MDC (coupler style), with the current series of 'standard' couplers (left to right) as looking Rusty (Uni-Line), McKenzie and the Kadee number 5.

Ernst Rango produced an operating knuckle coupler in the early seventies (1970), but it was designed to couple with Kadees and was oversize. As you can see, a standard coupler (left) that was accurate with the height car sets before their Kadee-sizes accurately.

Ted Stevens and Rivendell-type operating couplers included three pieces of cast iron, the coupler itself, the knuckle and the operating pin. Note in the case of the model couplers included a simulated hanging broken hose that was used as an uncoupling pin with a small spring placed between the two.

HO Scale Automatic Couplers

The Way Really Work on "Automatic" Couplers?

COUPLERS, SCALE OR OPERATING?

GENERAL SERVICE GONDOLAS FROM RED CABOOSE OR DETAIL ASSOCIATES HO SCALE KITS AND DIMI-TRAINS N SCALE KITS

By Richard H. Hendrickson

Hoppers vs. Gondolas

Among the few western railroads that ever owned general service gondolas was the New York Central's "Big Four" operations, which received 1,000 Cascade drop-bottom gondolas from American Car & Foundry in 1913. These cars didn't last long in that original form, however. By the late 1920s they had been rebuilt as solid-bottom gondolas. Their numbers declined rapidly in the 1930s and almost all were gone before World War II. — Jackson & Sharp Co. photo, Richard M. Hubbard collection

Typical of Westinghouse's early line of gondolas was this Great Coal Roads 41,000-lb. (GCRR series 1600) series built in 1917 and jointly owned by the Great Railways and the Union Pacific's Los Angeles & Salt Lake subsidiary. By 1934 they had been equipped with AB air brakes and AAR type B couplers. Both are clearly discernible above the drop doors in this view. — W. J. Wollenberg photo

Many GS gondolas were of composite construction with steel underbody or steel body framing, though this Bessemer Steel Lines model (building was under contract only to subsidiary BLW in 1917) was one of more than 1,000 planning cars by Western Pacific carriers which, with 1,000 added after being rebuilt by the mid-'20s, had drop doors and AB air brakes. Many of these cars were rebuilt to survive through the 1950s and into the early 1960s. — W. J. Wollenberg photo

Some railroads found the General drop door mechanism to be a maintenance nuisance and took steps as far up as Lowell Ann Cowell's gondolas to solid floors. The Baltimore & Hanover, bought Cowell composite cars by the thousands from 1913 through 1923, maintained them well, and kept many of them in service through the 1950s. Typical was this 41,000-lb. class car built in 1920. — W.J.W. photo, Hopkins Wilder Long collection

Though repurposed in anonymous in-use service and unsentimental, the Capitol Express 10 was cleaned, painted, and still in working order when photographed at Bakersfield in the early 1970s. It remained so deployed in 1978 except for the red window and shield paint (top-sliced reflecting element). The name simply denotes the container Caswell set up from spare/scrap parts from its decks, rollers, platform and racks. — Richard Hendrickson photo

As the late 1920s has come to command a wide general service goodness of the same design as the Caswell cars, but after 1930 When steel pockets were adopted a story of the Caswell drop ends were added. Most barrels (a gratitude) stayed in four, but 8707 (1930s) was photographed (ostensibly) 1941 in 1931 after having just been repainted in the Milwaukee era shops.
—Paul Hyde photo, Rick Kepp collection

The Union Pacific took delivery of 2,500 1-50-1 steel 50 gondolas numbered 60000-62499 from Pullman and Ryerson in 1941. They were all solid cars with corrugated ends. Extensive drop-door service, and these as "Borrowed" narrow trucks. By 1949 (about UP 61275) was photographed at the UP's Dolphin shops. It had AB car brakes and a non-matched rack of AAR cast steel trucks. Note how the drop bottom doors had been worn out of shape during loading and unloading. The UP retired these cars in accordance with specifications of these cars. — Union Pacific photo from the collection of the late Dave Marrable

The Canadian National was another true large company to purchase its gondolas in sizeable numbers. 100 (23,000) of the 1-50-1000 series were built in 1942. Of a shown here in the mid-1950s at Capitol, the car with AB, an Ajax type with cast-steel brake beam to original and later replacement, and the truck mismatch on its side assembly. — Fred Stark photo, Rick Kepp collection

wood chips and sugar beets. In addition, each car had accessory material racks to accommodate several stacking pipe that could be loaded at a commercial gas area, from occasional work or bridge can have occupied machine work.

Though initial early gasoline-carried purchase was 10 cars long, some were cars of the type were about 50 feet in length. A few were longer, the Box Canada, Rock Island, and Western Pacific owned many 60 gondolas that were 40 to 45 feet long inside. And the most advanced gondolas ever built were the Santa Fe's Timken cars of the late 1930s and '40s, which had both drop bottom doors and drop ends so they could be used for both economic load and various and interesting in between. Fortunately, a few years some of these big Santa Fe cars were equipped for automatic slipper hopper loading and had both drop end and side drop bottom doors removed (Ref.).

Ingenious Design

General Service gondolas answered freight car builders with two simple challenges. First, absolutely strong and rigid steel underframes were needed because the flyers were subjected almost entirely of drop doors which constituted loads on the structural integrity of the car's open-top bodies. Second, operating mechanisms for the drop-bottom doors had to be ready reliable, and easy to manipulate. The best profited considered the economy of ancient ingenious devices whose design was governed by systems and ingenuity governed by the companies that developed them.

The simplest drop-door operating mechanisms consisted of chains which were wound around transverse shafts (those the cars with no hold the doors in the closed position. Freight companies and commonly light or weight door arrangement was known as chain hold-ups. A stronger and more reliable version of this approach developed before World War I by the Equipment Railway Equipment Company employed hinged steel links which wound together as they were wound around a square steel shaft.

Even more sophisticated was the Carbell architecture, manufactured by the National Dump Car Company. A brake beam at the corners of the car operated crossing shafts that worked outward under the drop doors to open in cross bars. These shafts supported the drop doors on roller bearings with positive positioning provided by the cross that engaged ground rocks on the

GENERAL SERVICE GONDOLAS

GENERAL SERVICE GONDOLAS

GENERAL SERVICE GONDOLAS

EMD SD9 PHASE IV AS BURLINGTON NORTHERN (C&S) 831

Photos from the collection of Louis A. Marre

The pretty paint and bright gold lettering applied to the Phase IV SD9s made them attractive locomotives.

The Chicago, Burlington & Quincy Railroad's decision to purchase 40 Electro-Motive Division SD9 units in 1954 was a significant one for the railroad's motive power department. Not only were the SD9s the first road switchers purchased by the railroad since 1949, but they were also the first units to be delivered with dynamic brakes. Additionally, the SD9s were the first locomotives to be delivered with the new Phase IV carbody design.

The Phase IV carbody design was introduced by EMD in 1954 and was applied to all of the company's locomotive models. The Phase IV carbody design featured a number of changes from the Phase III carbody design that had been introduced in 1949. The most obvious change was the addition of a full-length roof walk. The Phase IV carbody design also featured a new cab roof design that featured a rounded roof and a rounded cab front. The Phase IV carbody design also featured a new hood design that featured a rounded hood front and a rounded hood rear. The Phase IV carbody design also featured a new underframe design that featured a new fuel tank design and a new battery box design. The Phase IV carbody design also featured a new radiator design that featured a new radiator core design and a new radiator fan design. The Phase IV carbody design also featured a new traction motor design that featured a new traction motor armature design and a new traction motor field design. The Phase IV carbody design also featured a new control system design that featured a new control system wiring design and a new control system component design. The Phase IV carbody design also featured a new air brake system design that featured a new air brake system piping design and a new air brake system component design. The Phase IV carbody design also featured a new dynamic brake system design that featured a new dynamic brake system wiring design and a new dynamic brake system component design.

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EMD SD9 PHASE IV AS BURLINGTON NORTHERN 831

MODERN DIESELS - UNION PACIFIC SD70ACE-T4 IN HO SCALE FROM ATHEARN, BLI, ATHEARN GENESIS AND CANNON & CO.

SUPERB SAILING RIP RAILS

8506
UNION PACIFIC
PACIFIC
ON PACIFIC
8506

Historically, the Union Pacific locomotive designer's most prestigious assignment, the Big Boy, a 4-8-8-4 articulated steam locomotive, of [illegible] length, was given a [illegible] of [illegible] and a [illegible] wheel arrangement. Of [illegible] built, [illegible] survive today as museum pieces and tourist attractions. Locomotive #4014 is undergoing restoration at the Steamtown National Historic Site in Scranton, Pennsylvania, and is expected to return to service in 2019.

The [illegible] began receiving its [illegible] in [illegible] at the [illegible] in Schenectady, New York. Final assembly was completed at [illegible] in Omaha, Nebraska. The [illegible] were delivered to Los Angeles, California, via the Los Angeles & Salt Lake Railroad. Each was assigned to a [illegible] district and was used in freight service between [illegible] and Ogden, Utah, and between Ogden and Green River, Wyoming. The [illegible] were initially assigned to the Los Angeles Division, but were later transferred to the Wasatch Division when the Los Angeles Division received [illegible] locomotives.

The [illegible] were retired from service between [illegible] and [illegible]. The last [illegible] to be retired was [illegible], which was withdrawn from service on [illegible]. It was donated to the Los Angeles Railroad Heritage Foundation and is currently on display at the Los Angeles Railroad Heritage Museum in Perris, California.

The [illegible] is a [illegible] locomotive that was built by the [illegible] in [illegible], Pennsylvania. It was delivered to the [illegible] in [illegible] and was assigned to the [illegible] Division. The [illegible] was retired from service in [illegible] and was donated to the [illegible] in [illegible], Pennsylvania. It is currently on display at the [illegible] in [illegible], Pennsylvania.

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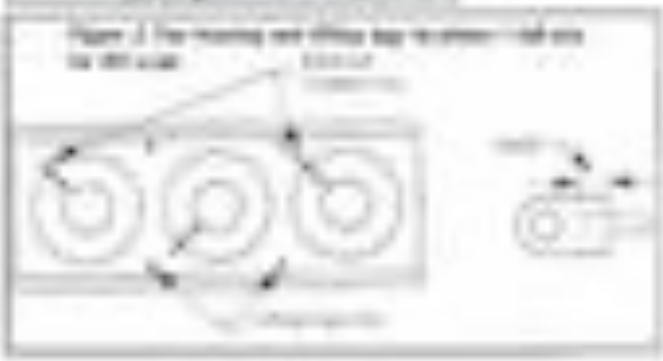


The roof of the cab showing the antennas.
—Ken Schoenman photo, October 1997

Top end, showing the fans, exhaust and exhaust stacks. —Ken Schoenman photo, October 1997

The engine cab was the same layout, utilized two 4-stroke engines as the 16-645 locomotive (shown) did. —Ken Schoenman photo, February 1998

Small shot of rear end of fuel tank.
—Ken Schoenman photo, October 1997

Right rear view of model, showing added details on rear of fuel tank.

Left view of model, showing details added on front of fuel tank.

Left side of model, showing detailed cliff truck and dynamic brake cabinet.

Rear end fuel tank detail, showing the handrail, mesh and painting.

Rear view of the completed locomotive model, as painting.

Shutterspeed Portraits

Ambrosia Mushroomtoes

Wheel Reloading

[illegible] [illegible] [illegible] [

Bill of Materials

Left side of detailed locomotive with Micro-Ark mods for running

Right side of detailed locomotive with Micro-Ark mods for running

The finished SD unit ready

out of the scrap. The radiator grilles were also shuffled, with a dark grey re-lining over the detail in black. Finally, the ends of the locomotive, the doors, and numerous grabirons were replaced many.

The shell was then mounted on the chassis using Kadee washers. I created a new frame to cover the shell. Because we found any of the Kadee 5 ft. six-wheel wheelsets easy to run the locomotive, except at slower scale DCC speeds. The lights were also easily installed, and the 1.5K DCC decoder was installed.

I enjoyed detailing this project more than anything else I've modelled. It was my first use of Chooch Road Shed and grilles. I think that it proves that really nearly the whole difference. If you only had one you could model locomotive engine, converting even more details and modifications. I would encourage the reader to overcome the considerable difficulties for other locomotive parts and to produce one for the new ones and scale locomotive projects. RMC

WESTERN PROTOTYPE MODELERS MEET

By Brian T. Kaldenbach

The Railroad Prototype Modelers (NPM) is a group of modelers who might show up at conventions around the country each year to share each others' modeling efforts. There is no address, no dues, no newsletter. We do announce the forthcoming conventions in the "Calendar" section of "The Journal" whenever space allows. You are invited, and we hope you bring some of your prototype-based models in any scale to share with attendees. There is sometimes a popular vote contest among the interest, but the emphasis is on modeling. There are usually some prototype modeling clinics that are run ahead of or with the NPM display. The conventions currently include this Western event in Southern California, a mini-meet in the east coast in Rock Valley (near Baltimore) March 31-April 3, a meet held in conjunction with the NMRA National Convention, including San Jose, California July 29-August 4, and in Naperville, Illinois, on the same October 19 and 21 weekend as the National Railway Show at Rosemont (Chicago).

The Twelfth annual Western Prototype Modelers Meet was held on October 24-26 in the Sacramento, California Community Center, a suburban Los Angeles. The Western Prototype Modelers Meet (as developers are prone with the annual prototype standard name in this area. This year's meet was an exception, for in years past, western railroad prototypes were all over the country gathered to display prototype-based models and enjoy highly informative prototype-oriented clinics.

The Western Prototype Modelers Meet welcomes modelers from all scales, roads and gauges. For information on the Eleventh Annual Western Prototype Modelers Meet (or for that to come October 2006), contact meet organizer Fred Ashpole at 323-846-6119 or at wppm@aol.com.

Rusty Wallace-inspired Pepsi-era NASCAR No. 2 car, by Chris Hill, runs on the big round-top at Dave Frey's spot in the Sacramento area. Chris's layout is a 1:24 scale model of the Pepsi 400 at Daytona International Speedway, complete with pace car, flag stand, and even a Goodyear blimp.

Dave Frey's modern Rio Grande Pacific was cast in 1:20.32 scale, allowing him to run Aristo-Craft trains on it. Dave's layout is a model of the Rio Grande Pacific's Moffat Tunnel route, complete with Winter Park Ski Train and Denver skyline. Dave's layout is a model of the Rio Grande Pacific's Moffat Tunnel route, complete with Winter Park Ski Train and Denver skyline.

WESTERN PACIFIC

ROCK ISLAND

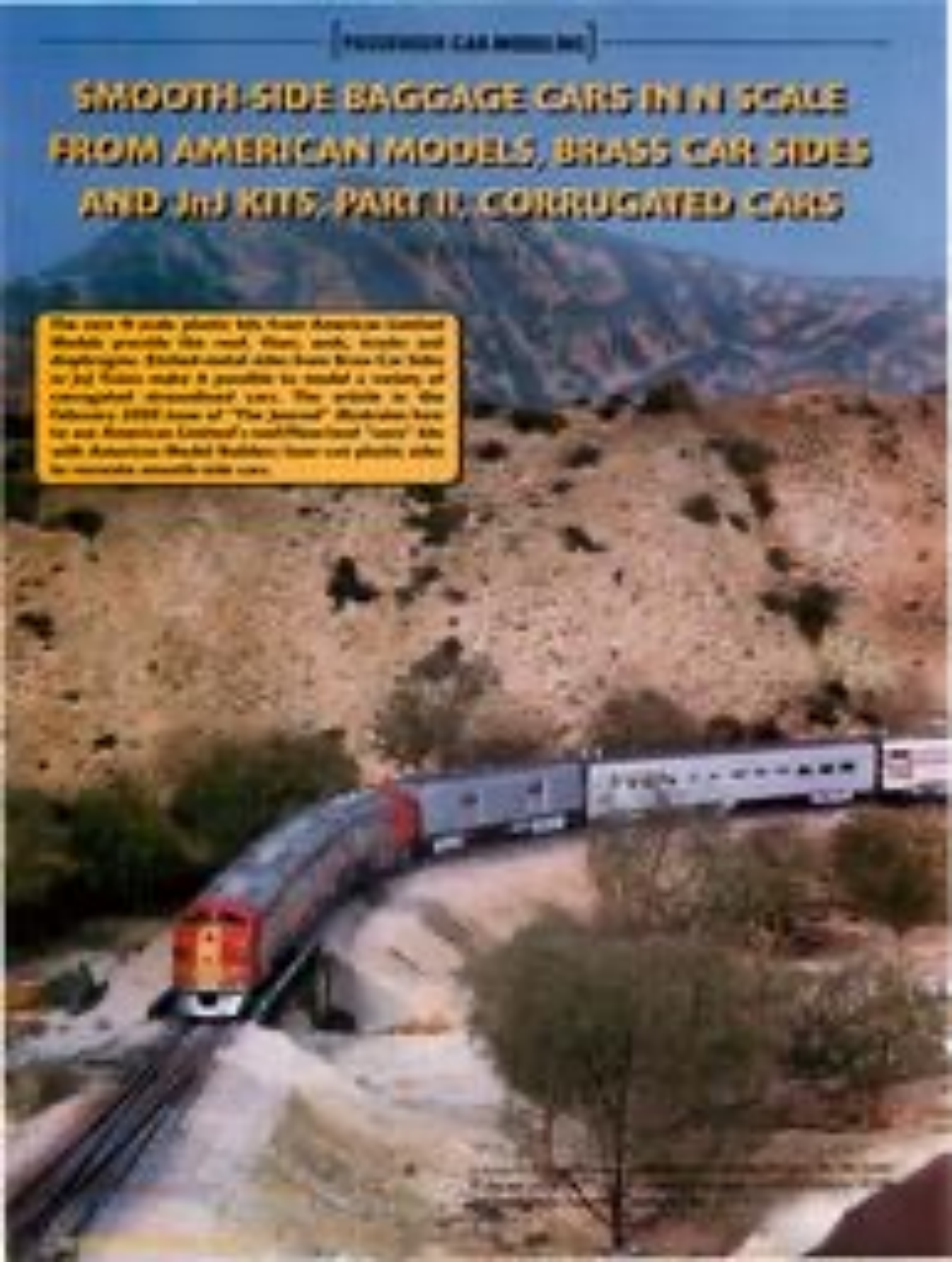
Rio Grande

SOUTHERN PACIFIC

COTTON
BELT

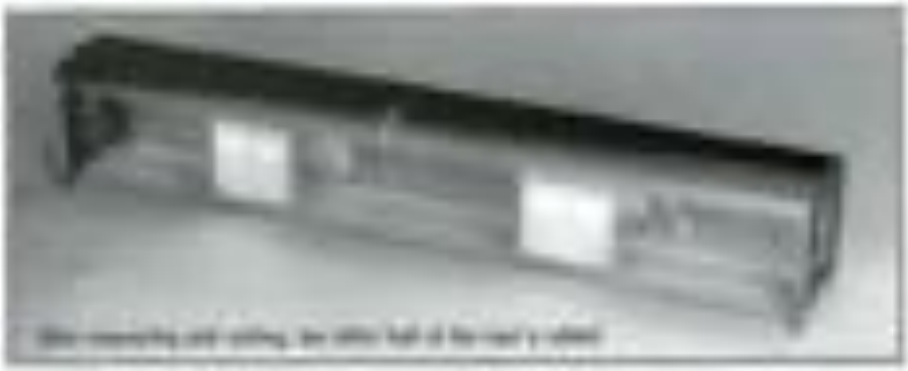
Santa Fe

SMOOTH-SIDE BAGGAGE CARS IN N SCALE FROM AMERICAN MODELS, BRASS CAR SIDES AND InJ KITS, PART II: CORRUGATED CARS



SMOOTH-SIDE BAGGAGE CARS IN N SCALE

The smallest Kantabrico doesn't use "chopper" tool to cut the roof. Note the replacement blade.



Once reassembled, the other half of the roof is added.

The lettered sides are added to the roof, using a sheet for reference.

Longer Isn't Always Better

Smooth-Side Baggage Cars in N Scale

Underbody Detail

Installing Brass Car Sides

IPD, RAILBOX & OTHER CARS FROM THE BOX CAR BOOM OF THE 1970S

PULLMAN-STANDARD CARS, PART 1: THE EARLY CARS

HO SCALE: FROM WALTHERS, MDC & ATHEARN

N SCALE: FROM MDC

MODELING MODERN BOX CARS

By Jim Eagle

The vast majority of the box cars still rolling on the rails were built during the seventies. The cars duplicate most all those cars in HO, N, S or O scale. Part 1 in the December 1999 issue, included a history of the "Box Car Boom" of the seventies and Part 2, also in the December 1999 issue, and Parts 3A and 3B in the January and February 2000 issues, illustrated and described the HO scale cars and the matching HO, S, O and G scale models. This issue begins the coverage of cars built by Pullman-Standard with the early cars, most of which can be duplicated with Walthers kits. Next issue we'll illustrate the Pullman-Standard cars that can be built with MDC kits in HO or N scale and, finally, the Pullman-Standard cars that can be recreated with Athearn's new HO scale kit.

SSW 10175, series 10000-10199, built in October and November 1970.
The Southern was the first road to purchase double-sheathed box cars from Pullman. These early cars had 12 panels to either side of the door, flat sides/ends, and plastic roof panels. Note the extended cushioned draft gear socket, which gives these rounded 50-foot box cars a coupled length of 52 feet 6 inches. The lower part of the door has false equipment and contains an outer sliding door. See text. —D. Scott Copeland photo, Harrisburg, Pennsylvania, August 1975.
HO Scale Models – more below.

SSW 10216, series 10000-10499, built in June 1972.
Southern's second order had only seven panels to either side of the door and "solid-sheet" corrugated side reinforcing rods. Otherwise, they look the same and dimensions are the same. What looks like eight small brackets at the top of the ends are actually vents. —D. Scott Copeland photo, Norfolk, Virginia, June 1980.
HO Scale Models – more below.

MODELING MODERN BOX CARS

Long one of the leading U.S. freight car-building names, Pullman-Standard pioneered several post-war car construction by building their first welded single-sheathed cars in 1948. Pullman was on to supply customers' cars to maximum advantage over the next 20 years and in the 1970s Pullman was the second-largest builder of RPO box cars and the largest supplier to Railbox.

Pullman's Early Exterior-Post Cars

The Pullman's 1948-1949 series, built at the rate of 1000 cars per year, were the first cars constructed by Pullman and likely the first produced by any builder. These revolutionary cars had one side door on either side of their drop, plus a Dreadnought style, dividing the panels into 12 panels. The cars also used a new type of cross-bearing and crossbracing, which meant that the end doors were no longer placed on corner posts near the car ends, but rather a little inboard because the cross bearings. The body of these first cars were covered with flat plate sheathing and diaphragms. Pullman continued to refine their design, however 1948-49RPS, built in June 1951, were another unique car, being the only five rail cars, when the center sills and deck were made of single corrugated steel. The overall length of this series was 40' 6", but the width of the sides and the panels were consistent, and the roof panels were flat. Numbers 1948-1949 and the Chesapeake & Ohio 1948-1949 cars were equipped with plug doors in 1951. Pullman continued on planning for post-war cars and introduced a single-sheathed 40-foot car for export service that same year.

By 1964 that was to become Pullman's entry in the standard single-sheathed 50-foot box car design pooled cars developed by Chicago Area Railcars (CBQ, GN, NP, SOO) in January 1964. These cars exhibited many of the characteristics found in all of Pullman cars built since the 1950s. One side door on either side of the drop, plus the typical cross, or arrow panels, a distinctive rounded corner with sills and an overhanging steel roof with a straight, flush car. All previous cars were given. Their numbers were even-

1948 (4-door) series (40000-40499) built April 1948
The Chicago and North Western ordered 400 such cars, but only some of the cars in the series were replaced with RPO box cars. The cars are Pullman's own numbering PS-1 type, but it should be possible to modify the Walthers kit to model these cars. The doors are 10 foot wide, and the cars had an outboard sliding door. — Ken Edgar photo, December 1964
HO Scale Details: Not yet kitted in HO

1948 (4-door) series (40000-40499) built in December 1948
When the Chicago Great Western ordered 500 cars with eight-foot doors in 1949, Pullman had refined its design a bit more, using standard PS-1 six-panel doors, PS-2 roof panels, and an overall one-piece PS-1 side. Another landmark was followed in 1950 when 10000 Chicago & North Western hopper cars were 1948 cars to work loading wood chips from the Black Hills of South Dakota to paper mills in Wisconsin. The doors were unusual and Japan grain doors used to hold the chips in. They are still used in this service today by Roberts Wisconsin & Eastern and Union Pacific. — Morgan Blackburn, February 1968
HO Scale Details: Intermountain

U.S. Army series (40000-40499) class A-1 built in November 1947
Southward Coast Line ordered their first Pullman-Standard boxes with 2-5 inch door openings, but many of traffic side improvements to accommodate GP fuel cells, and re-painted PS-1 cars. The body door was a new look sliding, while the auxiliary door was a six-inch plug door. All cars were built with outboard bracing on cars with outboard draft gear, a departure from AAR practices. — R. Scott Crandall photo, Jacksonville, Georgia, April 1964
HO Scale Details: Intermountain

[illegible] series [illegible] built in February 1958.
Southern's short ends came with standard PS-1 mon panels and a few other improvements, but they were otherwise quite similar to the earlier 7-panel cars. These cars were delivered with Dreadnought ends, but this one has obviously been repainted recently. —Jim Eager photo, July 1994
HO Scale Details: [illegible]

[illegible] series [illegible], built in June 1959.
Evansville & Western bought these Pullman-Standard 50' boxes with non-terminating PS-1 ends and 8'-2" doors for paper loading. —R. Scott Crutchfield photo, Green Bay, Wisconsin, November 1993
HO Scale Details: [illegible]

[illegible] series [illegible] built November 1959 through February 1960.
Southern's next two orders were built by the Lake Plant 2 clearance diagram and had slightly longer ingersoll side sills and slightly different ends. Some photos identify new photocuts. The car was new to Pullman's proprietary doors and Dreadnought doors were also used on these orders. The galvanized roof has held up very well. —R. Scott Crutchfield photo, Atlanta, Georgia, May 1974
HO Scale Details: [illegible]

[illegible] series [illegible] built late through September 1960.
Southern's 1960 order came with a different side roll design, instead of a waterfall, tapered formula. Here's an unstenciled 5-digit number. Note the [illegible] to the upper right on the reverse. This car "belongs" to Southern subsidiary Carolina & Northwestern. The ends are painted with black primer. Both seals, the bottom part of the door has been replaced. —R. Scott Crutchfield photo, Knoxville, Georgia, April 1993
HO Scale Details: [illegible]

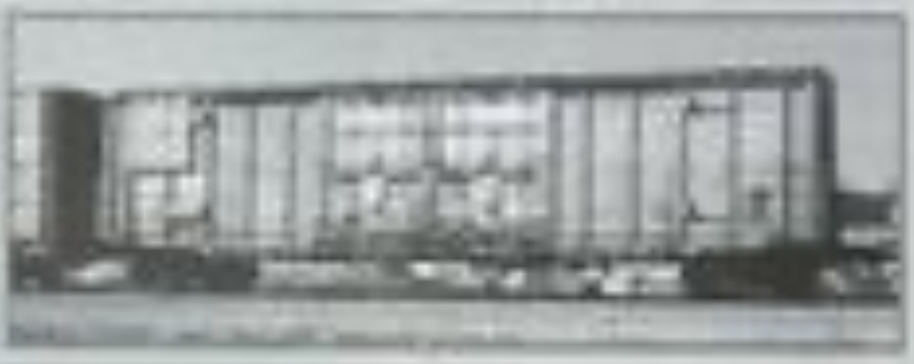
[illegible] series [illegible], built in [illegible] and November 1960.
The Louisville & Nashville bought Pullman-Standard 50' cars that were almost identical to the Southern's. The L&N used them to replace cars with outboard steel ends. —R. Scott Crutchfield photo, Nashville, Tennessee, November 1993
HO Scale Details: [illegible]

MOKOM

The Walthers HO Scale Model

Walthers HO scale model of the Pullman-Standard modern-style car with radial panels.

BT&I



MODELING LODI, CALIFORNIA ON THE SOUTHERN PACIFIC, CIRCA 1950, IN HO SCALE

LODI IN HO SCALE

By Gene Mantin
Prototype photos from the collection of Gene Mantin
Model photos by Robert Schleicher
Trackplan art by Craig Duffin

Gene Mantin is executing the trackwork, scenery and operations on the Central California time slice of Lodi, circa 1950. The track on this photo-originally appeared in the August 2002 issue Number 171 of CMR. Gene demonstrated the completed operations and layout design with the layout design with the [illegible] at the Mid-South 1999 World RR Expo in Atlanta, Georgia. All photos except where noted are by the author. Gene's layout is part of the layout tours at the 2002 National Model Railroad Association convention in San Jose, California, July 31-August 4.

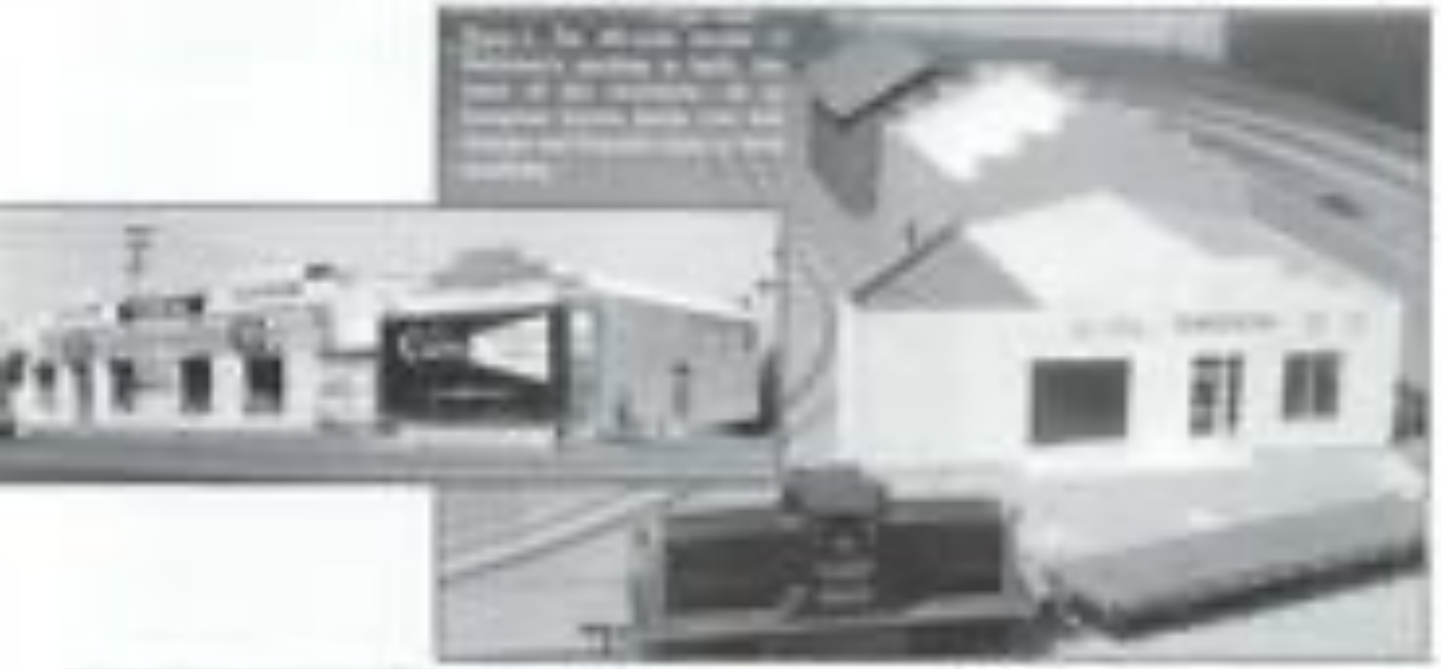
Model of the HO installation at the Lodi Depot, [illegible] at Lodi, California.

The inspiration for my modeling is an outgrowth of my boyhood town of Lodi, in the early 1950s when I was growing up. My family lives about three blocks from the Southern Pacific's main railroad. This was a favorite spot to spend a summer afternoon watching the trains and to meet and watch the local railroaders work.

While in the Air Force I gave extensive photographic and flight training to a lot of train spotters. When on leave, I extensively photographed the buildings and rail environment for future reference. While taking pictures of trains near the

The Prototype

SP Branchlines



Bay bridge and built under California control. A good article on the Antioch Bridge branch is in the June 1947 *Model Railroader* by J. R. Eagle.

A couple of train packing sheds and a feather yard on this branch are inside the Lodi city limits. After clearing the city it is a short visit to the branch. As the crossing traffic around on the short merchants overpass to Woodbridge was split off operationally from the Oakley branch.

Woodbridge had several fruit packing sheds and a winery on Elm. In 1940, Howard Wells bought that area and short and put in the siding of Lodi about 1/2 mile from Woodbridge. A drive track siding off of the Woodbridge branch ran between two warehouses into the plant.

A few miles south of Lodi is Galt, where the main branch leaves to the northeast, the Sierra Foothills. At once, SP interchanges with the Atlantic Coastal Line at the connecting terminal for the town known.

Central California Traction Co.

The Central California Traction Company also serves Lodi. The CCT is jointly owned by the SP, WP and the Santa Fe. From 1900 to 1918 the CCT

reached from Stockton to Sacramento. The CCT served as a feeder for all three parent companies and provided the Santa Fe with access to Sacramento. A main branch extended from the CCT mainline and a rail down the middle of Lodi avenue.

When passing Acme Lodi Turnbuckle and places crossing the SP mainline, the line had two sidings to the north one serving a feed store and another serving the CCT freight station and a third passing siding to the south, the CCT served a canned pear plant, a wine grape and fruit packing plant, a feed and fertilizer mill, packing sheds and a large cannery. One siding off of Lodi Avenue was the interchange with SP.

CCT Operations

The CCT was electrified with 1500 volts dc by a pantograph and trolley. Its motive power consisted of eight 1-45 class "I" and P0400 model primarily "pull the plug" or T-99 cars and many private owned electrics during the day to power and transmit on a line. By late the 1950s, the CCT will most to a night only operation. In the early 1960s they used GE 44 ton locomotives. During the week, small freight movements, the CCT would travel over a two GE 44 ton locomotives from SP's Alpine Avenue

subdivision. The small size provided because the VE's grade seldom exceeded 1% in the case with the engine and tender single.

A good article on the Tracton Company is in the November 1979 Railroad by Cliff Edson Dwight Stevens.

SP Freight Traffic

Lodi was on the SP's mainline as Oakland - Ogden Railroad. A 4,000 foot long siding extended to the south edge of town. An local and way trains from the morning. A wood crews split a wood column served many a faded, weathered water. A concrete company plant faced was located near the water tower but has been razed.

The Cameron General Co. would ship 30 to 40 carloads daily (one of beginning the name of new cars, General Mills had a fleet of captive covered 40 Cars SP box cars was just a yellow box to black sides with the inscription "Ships every week to SP agent Lodi CCT." General Mills would ship 40 to 50 box cars daily loaded with cereal, flour, and cake mix. Their would receive grain cars and dry. There would be tanker cars of flour, edible corn, salt to sugar. The grain would sometimes come in the cars. Receiving one cars (one cars by

...cook up. Other commodities such as cauliflower, beans, cherry, corn, maize, and dried eggs moved also under the Navy carry.

The first packing sheds existed only 6,000 cubic feet of grapes each year. The Lodi News-Sentinel published these 1950 county statistics: 41 cars on hand, 1,...2 cars on hand, 3, 80 cars on hand, 1, 11 cars on hand, 12, and on hand, 13, 000 cars. Across all of these stations cases and from Acampo. The local Union Ice Company did not serve the growers or handle this industry. I remember seeing cars spotted at the depot to ground level and 40ft industry owners dumped individually processed in the bins to provide cooling for the fruits which the cars were to be moved. Typically during the early 1960s, 4,000 ft. (included Lodi).

BP Lodi Operations

The BP had five trains assigned to Lodi. The City left train around at 6:45 a.m. and switched the area yard and the Burlington Wagon yard. The BP had backed in 2:00 p.m. and switched the Woodbridge branch which included General Mills. The empty cars would be moved to the morning on the Acampo processed cars, a classic Mills could get them cleaned and ready for the next day to load. This common for cars to be loaded during the day as wrong cars and over the north part of processed.

The train would arrive at 11:45 a.m. The cars were sent to Lodi and then sent to Yolo and interchange with the Acampo Transit. The Kentucky Wagon mill worked to serve and switch four tracks. The five was the Fifth Local. The current at 2:00 p.m. and served the industries along the 34 miles of the Network Lodi and PUA (Rush Transportation).

One of the problems the BP had in Lodi (Lodi operations was that the yard ...concrete around rooms. The trains and BP had a crossing battle over the blocking of the crossings so that he could ask a more flexibility because of this, a caused from these cars from a couple of blocks from the west frontrooms. But on the other side of the tracks.

Passenger Operations

Lodi had no direct passenger trains in each direction. The Sacramento Daylight were south in the morning and northbound area, the southbound San Joaquin Daylight from Oakland or Los Angeles. The connection was made in Lathrop but many of business where the three or five cars from Sacramento were cut into the L.A. Market train. In the morning, the process was reversed.

In the 1950s, a Sacramento-Stockton overhead existed 2:15 p.m. as the Daylight where would be in the station but would not go to L.A. The

MODELING LODI, CALIFORNIA IN HO SCALE

Modeling Lodi

The Correoli Layout

Photo: Mr. Sacramento Avenue was just round in the Imperial Valley. Numerous a mile after 1956. The cracked and ancient concrete of the arches has to be treated with glacier process because the 1.75-inch steel mesh failed. Bare patches stained and washed with salt to simulate the cracks and exposed parts.

per cubic) was to maintain as much of the cream of Cork as possible and the duplicate archivolt replacement. The plan is extremely easy to read, and it does sound like, and I could be convinced reading (Young) elements the Commission may permit across on the Victoria Embankment Tourism consulting deal.

By placing the insertion unit and on the diagonal, I was able to get a bright point. The new promoted space the more buildings in the downtown area. The intermediate in the diagonal but a whole passage through to the nearby town between leaving to put a monumental bridge over on the Alpha Canada can while in England) other other and a the sound perspective on the asset through several cars.

The modern transition makes a 12.5 inches and at the bottom some this shape is to access. The steel bottom bridge are 11.5 inch cables, 4.8 of the bottom work a cost 180 this, and the vehicles are three vehicles it should to the Louisiana number is done here. The rest of concrete exclusively in the bottom some was a heavy truck the next recent. The 12.5 inch two more 14 inch bottom corners.

One term to note is the use of a number 1 double slip switch, as can and at the point. This is a rare it across in England. Many of the principal trains you to to England have weight on shorter city networks to help save space. In a good scheme for a Victoria resident to book a city switch as her journey, and it was silly in this a as his his number 1 double slip. Although are proceed a as cross to to Cork, the double slip a was provided more heavily used movement work tracks.

RAIL

Photo (1): The tracks that were the Gateway to Cork are often last night in the union. Lower work planned to address the capacity issues with the car and station passenger to leaves the rails.

USRA 2-8-8-2 LOCOMOTIVES

HERITAGE: BY PHOTO 2000, HO SCALE MODELS

By Robert Schleicher
Photos from the collection of Harold K. Vollrath

Heritage, by Photo 2000, has introduced the first series of USRA 2-8-8-2 articulated steam locomotive models. We published a full-performance test Report on the model in the January 2000 issue of "The Journal." Here are some of the prototypes for the Photo 2000 model and some pre-production photos that could be modified to fit conversions of the Photo 2000 model.

The only steam locomotives that could be considered "standard" designs were being produced in United States factories when locomotive designers during the First World War. The USRA developed specifications and plans for a series of locomotives that could be produced quickly and efficiently to meet the needs of a nation at war. They were offered as all of the American railroads, and were soon brought to bear on design. The USRA designs that were produced during this period included 0-8-0 and 0-8-8 switchers, light and heavy 2-8-2, 4-6-2 and 2-10-2 mountaineers, and 4-12-2 and 2-8-8-2 articulated. All were based on ones of the best designs of the period.

Every single one of the over 100 roads had developed their own specific design for each type of steam-steam power. Now was particularly interested in having interesting that was not designed by their own engineers for a new, given or just purchased USRA designs for the single reason that they were of the only locomotives that the major locomotive builders were able to supply during the 1918-1919 period. Some of the roads were so pleased with the USRA designs that they actually continued some after the end of the War.

Modeling USRA Locomotives

The USRA 0-8-0 has been available as an inexpensive plastic model from Bachmann in both HO and N scales. Athearn has offered USRA Mikado 4-8-2 locomotives and 4-10-2 and the 4-8-4 superconductor that Athearn calls a USRA Mikado (she wonder a possibly what a model that one would be like Mikado 2-8-2). Bachmann has produced these 2-8-2 and 4-8-2 locomotives as N scale, as well, although the Con-Cor Body has produced a USRA Mikado (2-8-2 in N scale) that uses drive wheels that they call a USRA 2-8-2, but we must design was produced. Athearn has the USRA "Light" as their new Genesis series. USRA "Light" 4-8-2 and 2-8-2 locomotives have been made by Weinmeister in Yugoslavia for a number of times, including Lotz (Lotz), Model Power and one, IMC. The original "Lotz" Mikado and "Lotz" 2-8-2 locomotive that we had models was very close to the USRA 2-8-2, and IMC offers the locomotive with a nearly correct USRA style tender. However a recent run improved an HO scale USRA 2-8-2 with a cast-iron boiler that was produced by Sunshine later by Precision Hobby. Also produced a USRA 2-8-8-2 in N scale.

Modeling the USRA 2-8-8-2

All of the USRA locomotive types have offered in both HO and N scale as known, other by several manufacturers and detailed for specific railroads. This is the approach that Life-Like seems to be taking with their new Mastodon. By Photo 2000, HO scale USRA 2-8-8-2 type locomotive will be offered with the specific details of a particular road railroad. The Photo 2000 model has separate molded plastic piping so it will be possible for Photo 2000 to distribute any USRA 2-8-8-2 they would. A complete history of the USRA itself and of the USRA 2-8-8-2 in particular, by Richard Wendrykowski is included with each Heritage USRA 2-8-8-2 model. I recommend you refer to that history for specific details.

SANTA FE
1791

SANTA FE
1791

Virginian 2-8-8-2 No. 4 Northampton locomotive stands in the usual right side location. This was originally N&W 2121, new June in 1940. Photo taken at Elkhorn, West Virginia, September 1950.

The Virginian was positioned to meet the new requirements for the Locomotive Test Run in 1948. One was seen at this original site (1950) in its duty with the Virginian Mac. Photo taken at Elkhorn, West Virginia in June 1950.

N&W 2123, No. 1943 was changed from to this as-built class it was one. This was one of the 1936 2-8-8-2s originally used on the Virginian as their number 401. Photo taken at Cincinnati in September 1949.

The Norfolk and Western Railway was the largest purchaser of the USRA 2-8-8-2 which shortly came to be complete name the locomotives were based on the N&W 1-4-8-2 Mountains but modifications, the N&W sold seven of these USRA locomotives to the Pocahontas Road and the Texas (to operate Class Pacific and Interstate), the N&W brought back every of these to operate. 1200 2-8-8-2s were sold during the war to the Virginian and the Chesapeake. After the war, the Northern Pacific and the Canadian & Bus Canada Railway bought 2-8-8-2 (1-4-8-2) classes, as did the N&W. Virginian and Chesapeake. These were just some very similar locomotives produced but the Mallards and Class but with the N&W's more advanced Kaskaskia design. These 2-8-8-2s were some of the last steam locomotives to be ordered in the USRA, the Mallard and Pocahontas locomotives but not seen about 1941. The Chesapeake retired the last of these in 1952, the Virginian's lasted until 1953 and the last of the N&W's was retired in 1958. The Mallard is the only preserved locomotive.

The engines 1200-1210 were ordered for the railroads over the years changing their appearance. The three 2000 series have most every as such system locomotive of the class was replaced. Plans to use them nothing to come from the plans written 3 months the Arrow and cab remained the same, as the original cab style changed making or locating on the remaining locomotive to avoid a specific photograph. Not no pattern in available photographs of anomalies the case of the roads that pondered these 1200-1210. One can take note in the books of each specific railroad.

RMC

OVERLAND MODELS, INC. (OMI) HO SCALE EMD GP15-1 TEST REPORT

By [illegible]

[illegible]

[illegible]

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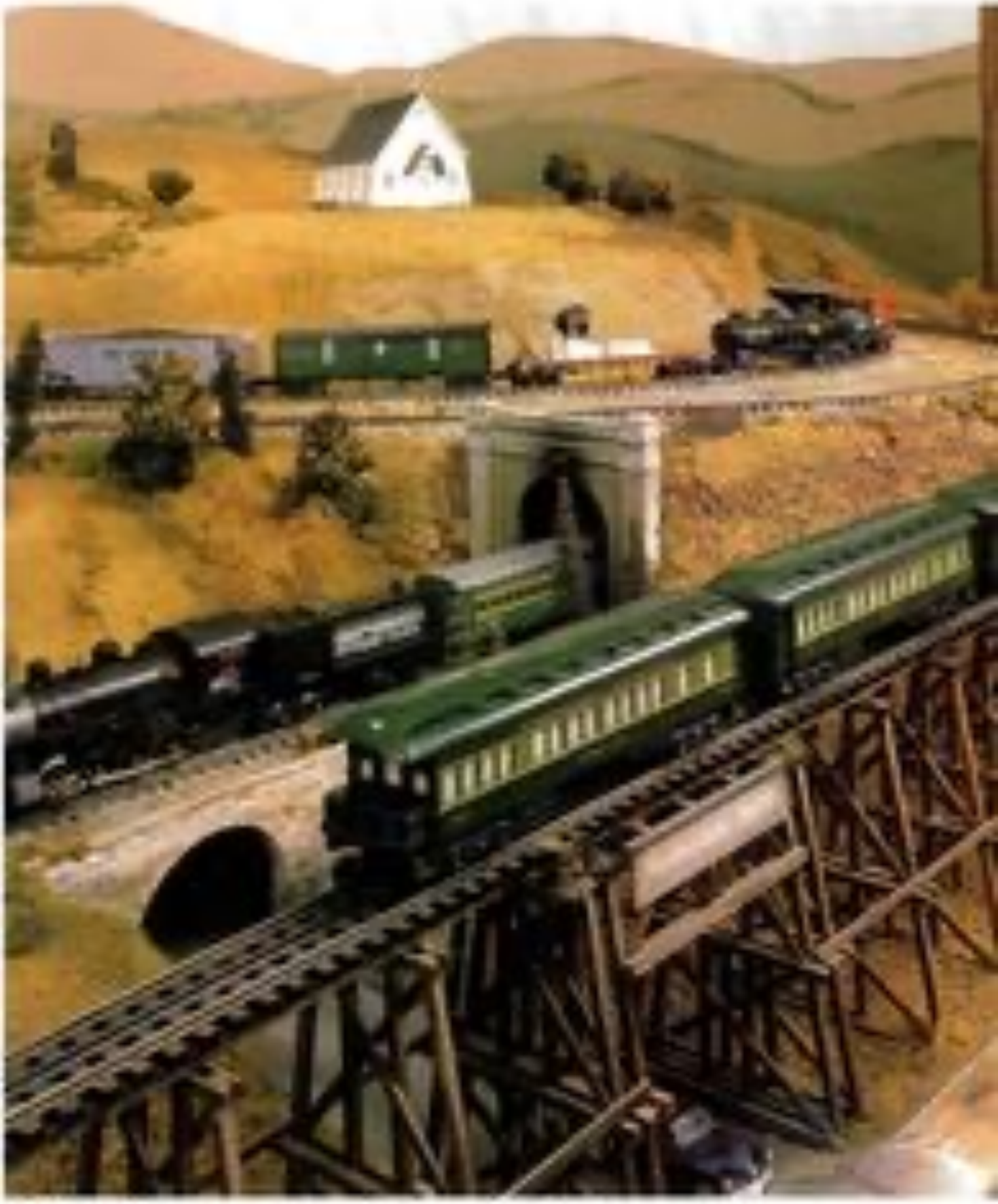
story and photos by George Hall



Mr. Bond Sanders, named after an early Oberon benefactor, has a history southern California railroads near and dear.

ABOVE: Joe J. Gallardo at the "ground floor" of his modular empire. He estimated he will devote 6 to 8 years to the complex.

Sanders's new modeling venture, which incorporates elements and visions he's gained over years of his travels, does not represent Bond's first foray into model railroading. He's been a member of the Southern California Model Railroad Association for 15 years and has been a member of the Pacific Coast Railroad Club for 10 years.

Every train tells a story

Sanders says he's found that he can do his best thinking when he's working on his layout. He says he's always had a plan for how he can make the railroad that runs side by side with his model train set into a route, where the Southern Pacific pulled out to the north, the Santa Fe to the south and the Union Pacific to the east.

He's also had visions for miniature cities that showcase the many cultures and ethnic groups that have settled in the Los Angeles area. He's been a member of the Chinese Historical Society of America for 10 years and has been a member of the Japanese American Museum for 15 years.

Sanders's model railroad empire will include a Chinese village, a Japanese village, a Mexican village and a Native American village.

He's also planned a barrio that would offer some of the ethnic cultural displays, displaying the Mexican tradition and incorporating ancient Native American cultures into the construction of what the Golden State is all about. Sanders has figured out how to have children on the ground level watching the trains go by and watching model airplanes circling the barrio.

That said, Sanders has had to decide what kind of a barrier he wanted. Was it going to be a wire-like network and will there be room for a dance festival theater?

Eileen Ryan Enterprises, a Burbank management and production company where Sanders has worked as a production manager, has been involved in the Los Angeles film industry for more than 30 years. Sanders, in turn, has a diverse passion. Native Catalan, who is also quite conversant in Japanese, Sanders has been a member of the Chinese Historical Society of America for 10 years and has been a member of the Japanese American Museum for 15 years.

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"Building" a layout

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Title type foreshadowing, draw this device while planning the layout he built for San Katherine in 1952. The track plan is shown below.

SPRAWLED HALL. Modern Depot, the biggest station on the Atlanta Peninsula during the "railroad era," still exists in the city's downtown area as a museum. The model captures the layout in its original setting along the Southeastern Pacific.

"A postcard view seven or eight feet, the hillsides were rolling and forested, the grade falling gently for over a dozen miles on the western end," the opening flashback-to-be read. "Ahead of the engineers was wooded terrain dominated by a deep canyon and a wide river valley, where there was evidence of ample water to support a railroad."

Scenery on High

Following on the heels of the foregoing, part narrative, part descriptive, and climbing a dozen flights of narrative stairs to the loft.

After one or more trips to a specialist writer, accustomed to flowcharts, in one of the first movements you see in the assignment of the layout's plan. You can always create remaining scenes of an even longer. The layout looks and is designed best to be viewed as the overall topography of modern and the pictured backdrop. The layout's table also assembly size, 96, 'Centipede and Workstation Box.

The same areas is to the under-one. Some of the small plot buildings with rules on Peterson's Model Railroad Library are really anonymous. Operation specialties' pieces of detailed

modeling in the prefabricated bridge, which crosses the road and engine movement.

Because the road prefabricated bridge measurement Peterson's Model Railroad with a mathematical plan, landed bridges information after the addition as the rail over-grooved to fit one of the original mounted on the layout. Half of scenes, there are shrubs and figures, many people here, and other scene enhancers. After detailing the chosen scenes to split-rail view.

Designer the railroad's exact

TOP: An engine terminal sits adjacent to the warehouse. The performers smiled after walking from an adjacent motel room and in front of the owner's engine house. It seemed a watershed year with the trains.

RIGHT: Double-stacks, with access built by rail terminals, provide a fast overnight delivery to some of the largest cities in the passenger investment. Generally, this is a working train; most trains were by timetables on the freight railroads in Illinois.

An unusual setting

Our scenes in an interior. But, pictures of trains are more than just people looking for trains and it helps to remember. Here, more, given its setting, this scene isn't the only thing depicting the arrangement and arrangement of components.

Before finishing this work in the early 1990s, I found myself wondering just what was the role of photography in my work. Was it just a tool to help me paint? Was it a way to record a moment in time? Was it a way to express myself? I realized that it was all of these things and more. Photography is a powerful tool that can help us to see the world in new ways, to capture moments that would otherwise be lost, and to express our creativity.

Williams

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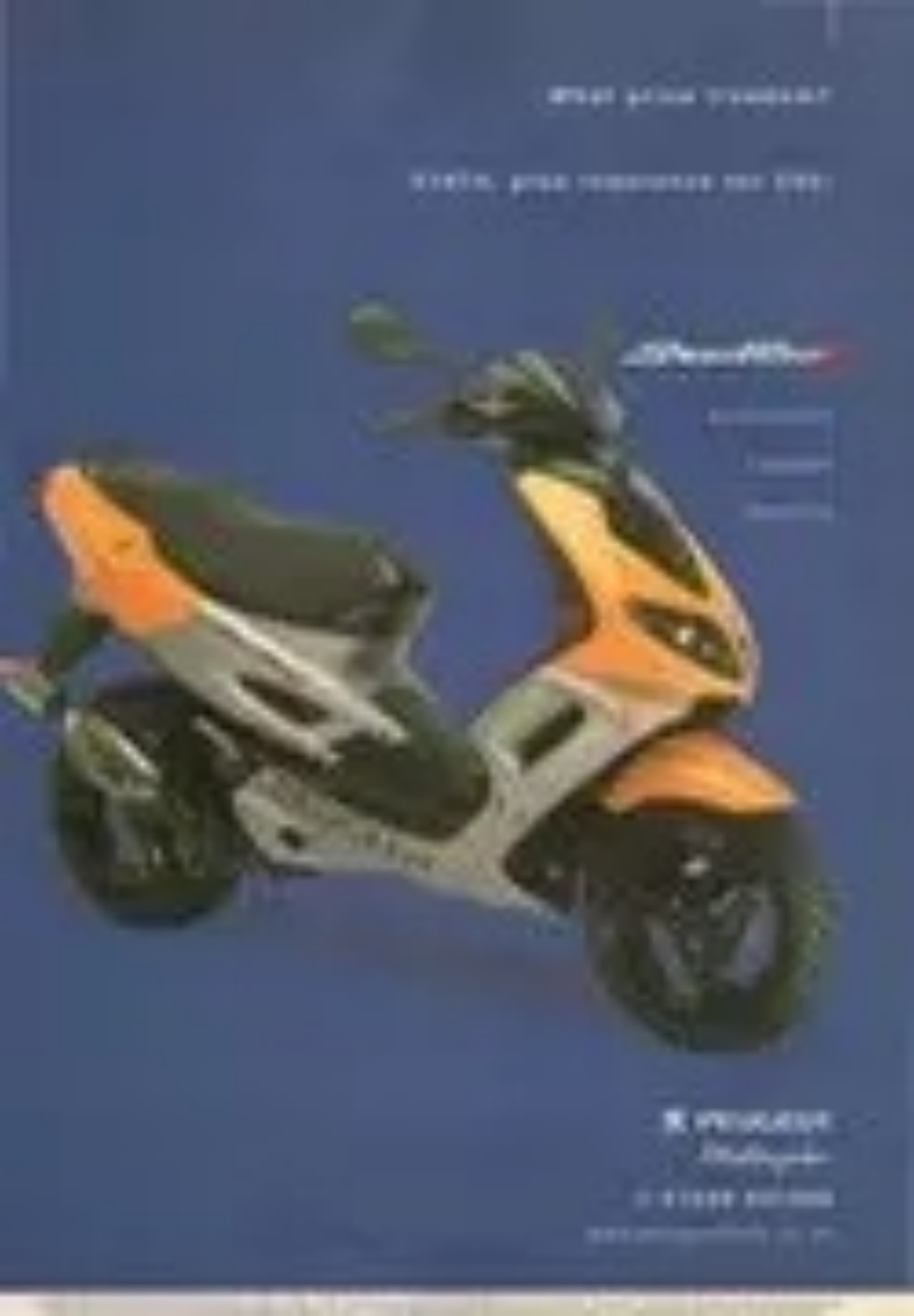

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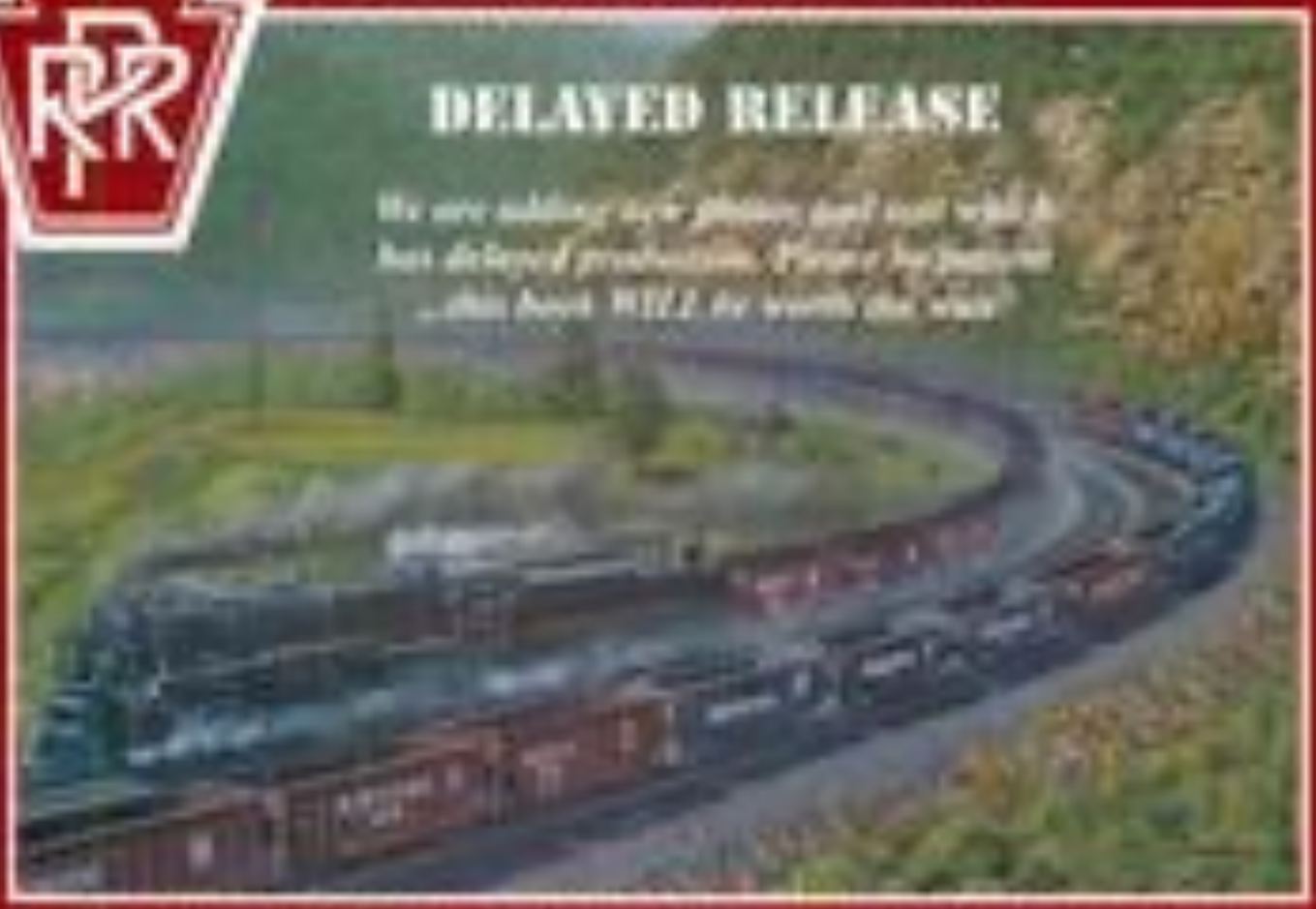

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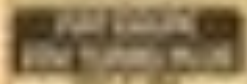

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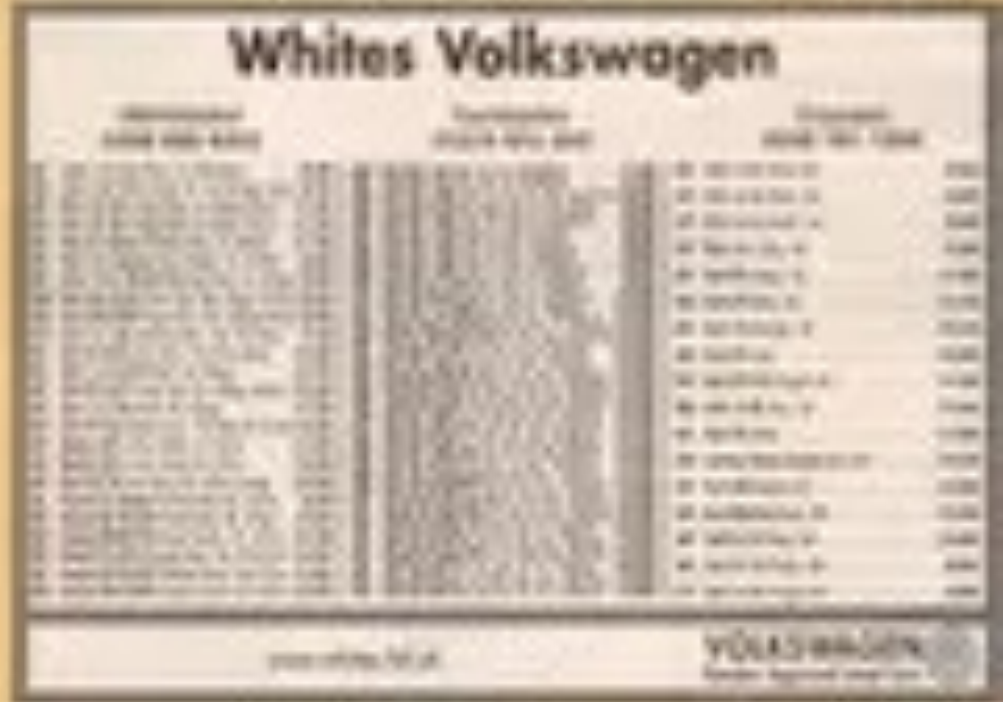

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Spring snow run

It's the spring of 1954, the leaves are on the trees, and there's only a few dozen feet near the crest. But an hour away and a thousand feet higher, a town's worth has halted operations on the Maine Central, as 9-2 no. 111 has been called with a plow to clear the line. ■

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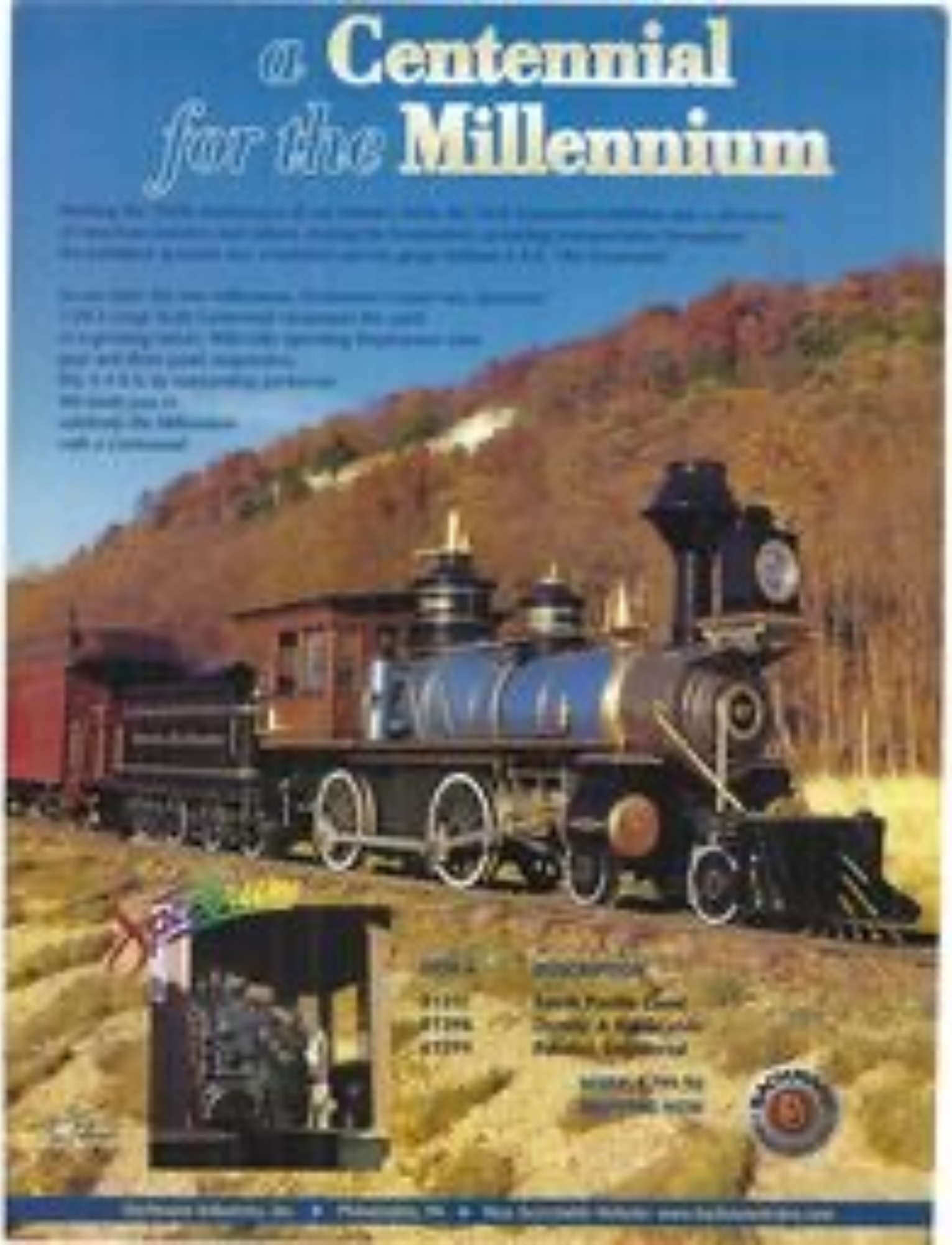
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